Security at a Crossroad
Regaining our lost visibility

Sumedh Thakar
Chief Product Officer, Qualys, Inc.
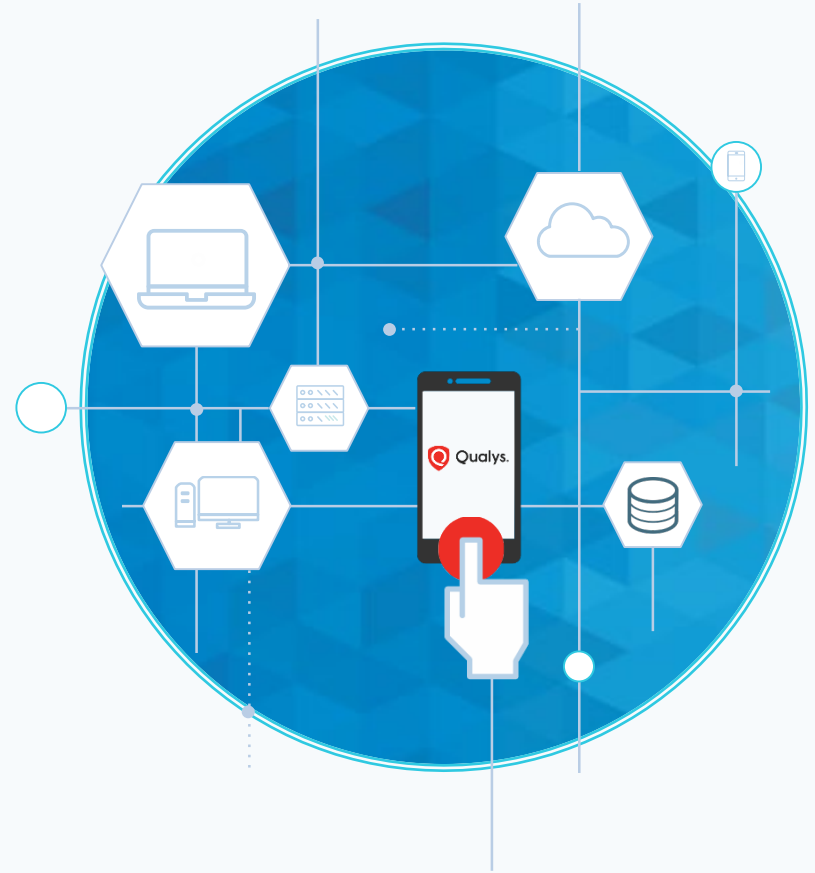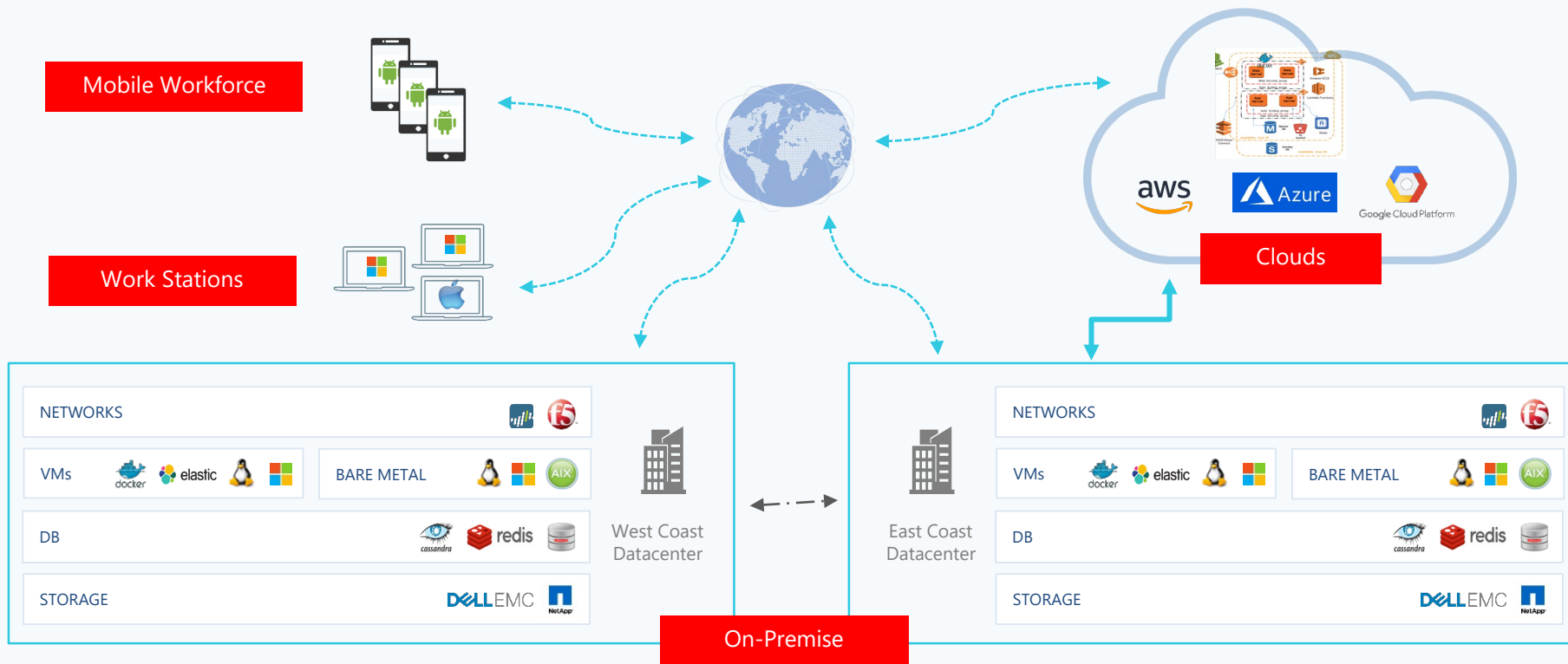
Digital Transformation

Holistic Transformation of Business to Digital

Cloud, Containers, IaaS, PaaS, OT, IIoT, IoT, Mobility, Web apps, APIs, Mobile Apps

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Containers

Real game changer

Hypervisor disappearing, bare
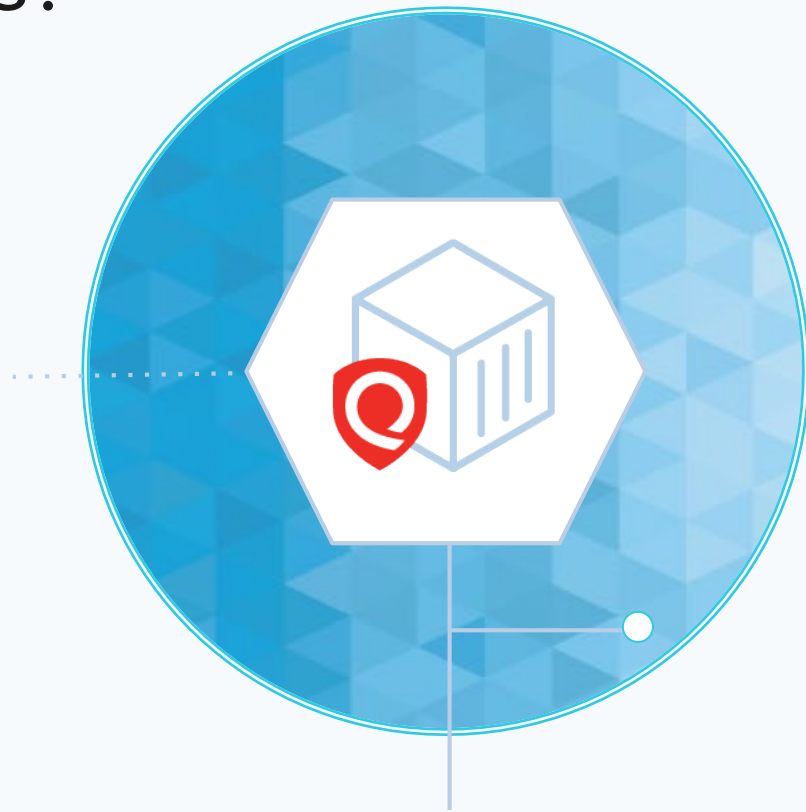metal is back

Kubernetes Infrastructure-as-code

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Containers – no servers?

Container-as-a-Service AWS Fargate

AWS Lambda function-as-a-service, serverless!

Kubefed?

"Priceline" for Containers?

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DevOps

This is real and highly contagious

Developer decides how infrastructure runs in production

Speeds up significantly how fast code goes to production

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On-Prem

Shrinking Datacenter Footprint

Increasing OT & IIoT

Corp IT – more distributed & mobile

More IoT!

Enterprise Mobility != BYoD

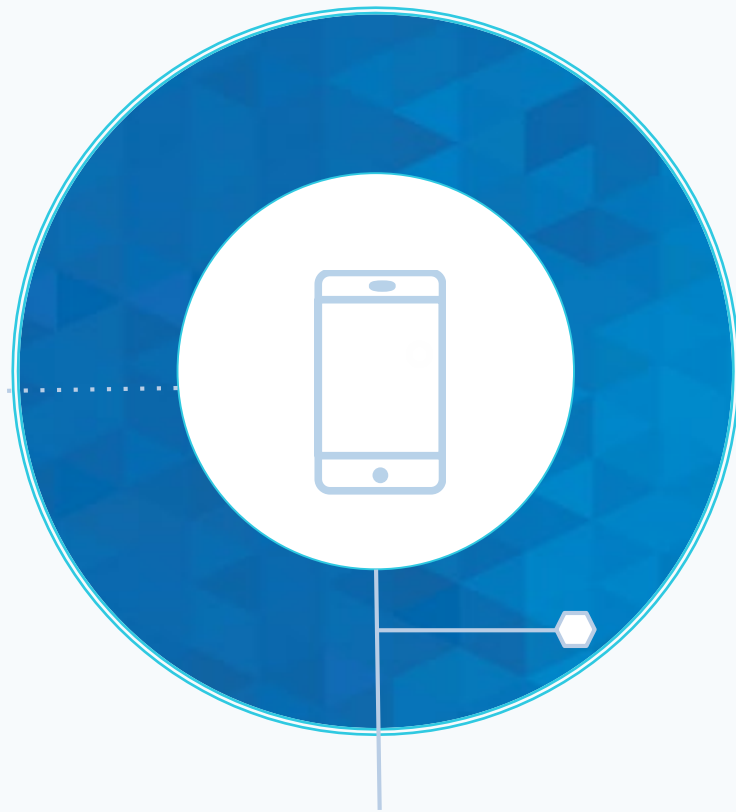Enterprise owned handheld devices

Indispensable to modern business

Running apps handling sensitive business & consumer data

Mobile!

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Web Apps & APIs

Web Apps for the humans

APIs for the inhumans

Wide window into all your data

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SaaS

More aaS everywhere

No infrastructure to manage

No Applications to code or manage

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SaaS

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Security

IBM PC AT

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November 13, 1984

PC Magazine about IBM PC AT

"The AT provides the first real system for allowing executives to sleep at night:

A hard-to-duplicate 'tubular' key locks all but key holders out of the system"

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34 years later

No magic key = No sleep at night!

Same challenges x 10

No visibility across global hybrid infrastructure

Still need to do Vulnerability & Configuration management

Still need to monitor integrity of systems (?)

More data incoming into "SIEM" deployments

Basically no visibility to respond

Compliance demands on new infrastructure

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QSC Conference, 2019 29 April 2019

Future of Security

Transparent Orchestration

Built-in Automation the only real solution

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Starts in DevOps

DevSecOps

Strict CI/CD pipeline controls

CI: Eliminate majority issues before prod

CD: Embed security artifacts in Image

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Agile SecOps

SecOps focus on monitoring & response

Drastically reduce security solutions deployed after the fact

New generation of Security Analytics platforms – Data Lake

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Qualys Platform Approach

Embracing our own Digital Transformation

Massive expansion of backend for visibility – 2+ Trillion security datapoints indexed

Comprehensive coverage of sensors – scanners, agents, cloud connectors, container sensors, passive sniffers and mobile agents

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Qualys Sensor Platform
Scalable, self-updating & centrally managed

Physical

Legacy data centers

Corporate infrastructure

Continuous security and compliance scanning

Virtual

Private cloud infrastructure

Virtualized Infrastructure

Continuous security and compliance scanning

Cloud/Container

Commercial IaaS & PaaS clouds

Pre-certified in market place

Fully automated with API orchestration

Continuous security and compliance scanning

Cloud Agents

Light weight, multi-platform

On premise, elastic cloud & endpoints

Real-time data collection

Continuous evaluation on platform for security and compliance

Passive

Passively sniff on network

Real-time device discovery & identification

Identification of APT network traffic

Extract malware files from network for analysis

API

Integration with Threat Intel feeds

CMDB Integration

Log connectors

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Platform Approach

19 solutions on single platform .. and counting – reduced agent fatigue

DevOps friendly capabilities

Solutions for CI/CD

Extending solutions into remediation & response

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Qualys Platform Approach

Rapid expansion of R&D org

Building dedicated Data Lake & Data Science team

Key technology acquisitions & Investments

Acquisitions & Investments

Nevis	Passive Scanning & Secure Access Control
Netwatcher	Event Correlation Platform
1Mobility	Enterprise Mobility
Layered Insight	Built-in Runtime Container Security
42Crunch Investment	API Security
Adya	SaaS Security and Compliance
Frog 1	

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Qualys Cloud Apps

ASSET MANAGEMENT

AI — **Asset Inventory**
Maintain full, instant visibility of all your global IT assets

SYN — **CMDB Sync**
Synchronize asset information from Qualys into ServiceNow CMDB

CI — **Cloud Inventory**
Inventory of all your cloud assets across AWS, Azure, GCP and others

CRI — **Certificate Inventory**
Inventory of TLS/SSL digital certificates on a global scale

IT SECURITY

VM — **Vulnerability Management**
Continuously detect and protect against attacks, anytime, anywhere

TP — **Threat Protection**
Pinpoint your most critical threats and prioritize patching

CM — **Continuous Monitoring**
Alerts you in real time about network irregularities

IOC — **Indication of Compromise**
Continuously monitor endpoints to detect suspicious activity

CS — **Container Security**
Discover, track, and continuously protect containers

CRA — **Certificate Assessment**
Assess all your digital certificates for TLS/SSL vulnerabilities

PM — **Patch Management**
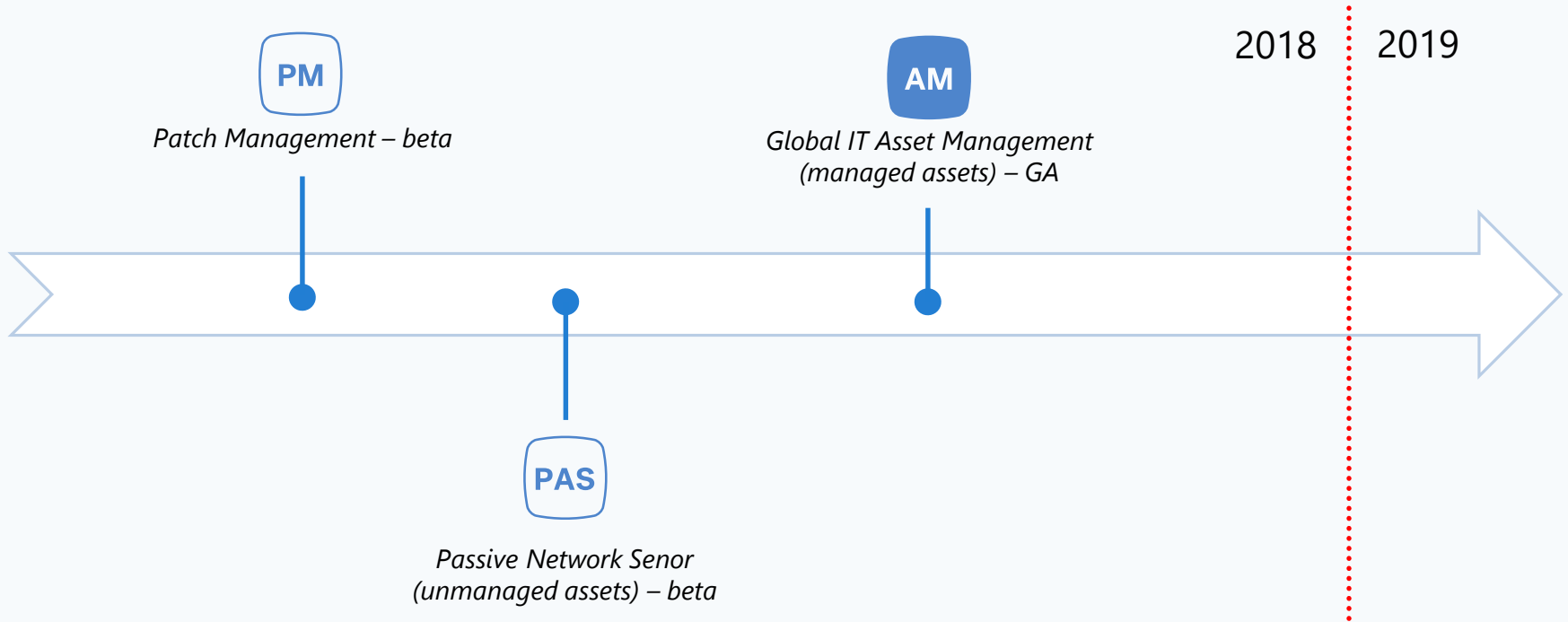Select, manage, and deploy patches to remediate vulnerabilities

COMPLIANCE MONITORING

PC — **Policy Compliance**
Assess security configurations of IT systems throughout your network

PCI — **PCI Compliance**
Automate, simplify and attain PCI compliance quickly

FIM — **File Integrity Monitoring**
Log and track file changes across global IT systems

SCA — **Security Configuration Assessment**
Automate configuration assessment of global IT assets

CSA — **Cloud Security Assessment**
Get full visibility and control across all public cloud instances

SAQ — **Security Assessment Questionnaire**
Minimize the risk of doing business with vendors and other third parties

WEB APPLICATION SECURITY

WAS — **Web Application Scanning**
Secure web applications with end-to-end protection

WAF — **Web Application Firewall**
Block attacks and virtually patch web application vulnerabilities

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Q4 2018 releases

PM

Patch Management – beta

AM

Global IT Asset Management (managed assets) – GA

PAS

Passive Network Senor (unmanaged assets) – beta

QSC Conference, 2019   29 April 2019

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2019 – even more apps to come!

Patch Management – GA

Passive Sensor – GA

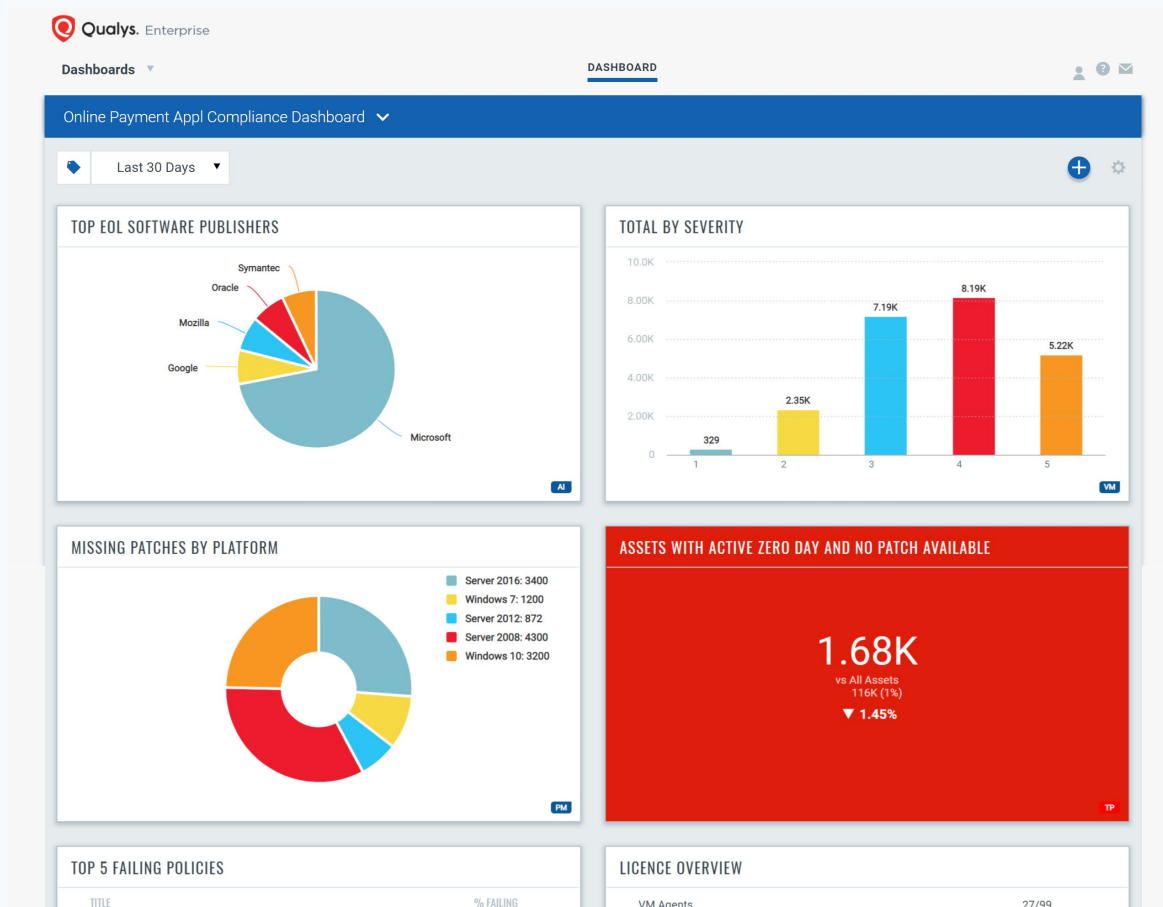Secure Enterprise Mobility

Secure Access Control

API Security

Software Composition Analysis

Breach and Attack Simulation

Security Data Lake & Correlation Platform

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Unified Dashboards

DEMO

It's the Platform!
(a real one)

Cloud Platform Environment
Security at scale on hybrid clouds

19+ products providing comprehensive suite of security solutions

12,000+ customers

7 shared cloud platforms across North America, Europe & Asia

70+ private clouds platforms deployed globally... on-prem, AWS, Azure, GCP

16+ PB storage and 16,000 cores

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Cloud Platform Highlights

1+ trillion security events annually

3+ billion scans annually
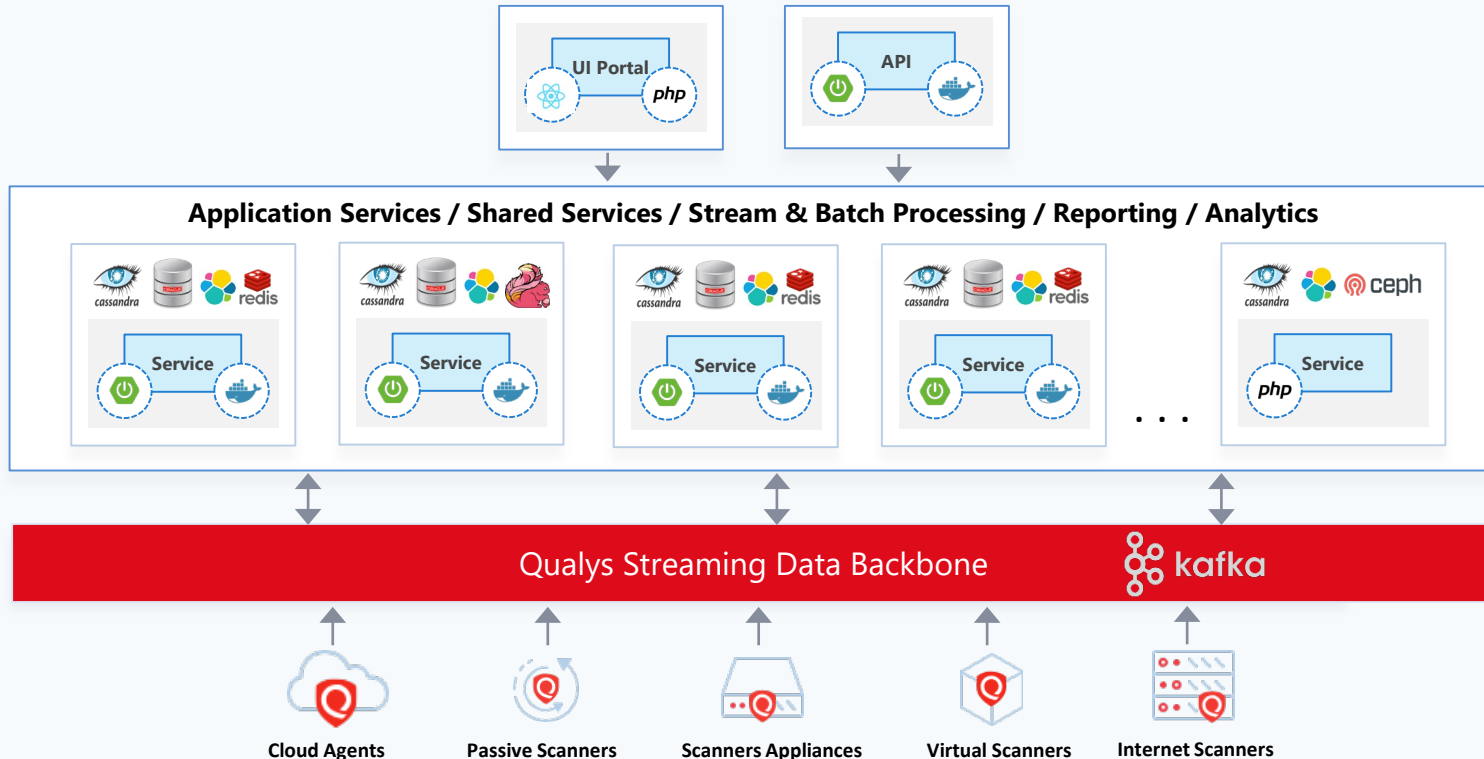
2.5+ billion messages daily across Kafka clusters

2+ Trillion data points indexed in our Elasticsearch clusters

Unprecedented 2-second visibility

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Qualys Cloud Platform
Sensors, Data Platform, Microservices, DevOps

Qualys Cloud Platform

Integrated Suite of Applications

CA AI VM CM TP FIM PC PCI SAQ IOC WAS WAF

Shared Services

| Authentication Service | Authorization Service | Subscription Service | Indexing Service | Data Sync Service | Tagging Service |

Messaging, Data, Analytics Platform

kafka ORACLE ceph elastic cassandra redis Flink

Infrastructure and DevOps Toolchain

| Logging | Monitoring | Config Mgmt. | Service Registry | CI/CD | Docker/ Kubernetes |

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Advanced Correlation & Analytics

ML/AI Service	Orchestration & Automation	UEBA
Patterns | Outlier | Predictive SoC	Integration | Playbooks | Response	User & Entity Behavior Analytics

Threat Hunting	Security Analytics	Advanced Correlation
Search | Exploration | Behavior Graph	Anomaly | Visualization | Dashboard	Actionable Insights | Out-of-box Rules

Qualys Security Data Lake Platform

Network   Security   Server   End Point | CA | VM | AI | PC | IOC | WAS | WAF | Apps   Cloud   Users   IoT

Qualys Apps

Qualys Quick Connectors

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